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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,520	07/20/2001	Barbara L. Hempstead	19603/2595	9715

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EXAMINER
NICKOL, GARY B

ART UNIT	PAPER NUMBER
1642	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/830,520	Applicant(s) HEMPSTEAD ET AL.	
	Examiner Gary B. Nickol Ph.D.	Art Unit 1642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-54 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) 1-54 are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-5, 20-24, drawn to the special technical feature of a method of inducing angiogenesis or promoting vessel growth comprising delivering a protein or polypeptide ligand.

Group 2, claim(s) 1-4, 6, 20-23, 25, drawn to the special technical feature of a method of inducing angiogenesis or promoting vessel growth comprising delivering a nucleic acid sequence encoding a trk receptor ligand.

Group 3, claim(s) 7-17, 19, 26-28, 30, drawn to the special technical feature of a method for treating a pathological disorder in a patient comprising administering a protein or polypeptide ligand.

Group 4, claim(s) 7-16, 18-19, 26-27, 29-30, drawn to the special technical feature of a method for treating a pathological disorder in a patient comprising administering a nucleic acid sequence encoding a trk receptor ligand.

Group 5, claim(s) 31-35, as solely drawn to the special technical feature of a method of inhibiting angiogenesis comprising delivering an inhibitor of **expression** of a trk receptor ligand wherein the method comprises delivering an antisense molecule.

Group 6, claim(s) 31-34, 36, as solely drawn to the special technical feature of a method of inhibiting angiogenesis comprising delivering an inhibitor of **activity** of a trk receptor ligand wherein the method comprises delivering a trk receptor body.

Group 7, claim(s) 37-44, 46, as solely drawn to the special technical feature of a method for treating a pathological disorder in a patient comprising administering an inhibitor of **expression** of a trk receptor ligand wherein the method comprises delivering an antisense molecule.

Group 8, claim(s) 37-43, 45-46, as solely drawn to the special technical feature of a method for treating a pathological disorder in a patient comprising administering an inhibitor of **activity** of a trk receptor ligand wherein the method comprises delivering a trk receptor body.

Group 9, claim(s) 47-48, drawn to the special technical feature of a method of screening for a modulator of angiogenesis comprising providing a candidate compound and detecting modulation of a trk receptor ligand induced signal transduction pathway in a cell in the presence of said candidate compound.

Group 10, claim(s) 49-54, as solely drawn to the special technical feature of a method of diagnosing or monitoring a pathological disorder in a patient comprising determining the presence or amount of a trk receptor ligand.

Group 11, claim(s) 49-54, as solely drawn to the special technical feature of a method of diagnosing or monitoring a pathological disorder in a patient comprising determining the activation of a trk receptor ligand.

The inventions listed as Groups 1-11 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Groups 1-11 encompass different special technical features as identified in the groupings above. The inventions listed above do not relate to a single general inventive concept under PCT Rule 13.1 because under unity of invention between different categories of inventions unity of invention will only be found to exist if specific combinations of inventions are present. Those combinations include:

A) A product and a special process of manufacture of said product.
B) A product and a process of use of said product.
C) A product, a special process of manufacture of said product, and a process of use of said product.
D) A process and an apparatus specially designed to carry out said process.
E) A product, a special process of manufacture of said product, and an apparatus specially designed to carry out said process.

The allowed combinations do not include multiple methods as claimed in the instant application. Hence, only one process of use and or method relates to a single general inventive concept. Since multiple methods with different special technical features are claimed, the first invention of the category first mentioned in the claims of the application will be considered as the main invention in the claims, see PCT article 17(3) (a) and 1.476 (c), 37 C.F.R. 1.475(d). Accordingly, Groups 1-11 are not so linked as to form a single general inventive concept and restriction is proper.

Species Election

Claims 4, 16, 23, 34, 43, or 52 are generic to a plurality of disclosed patentably distinct species comprising the following:
a) brain derived neurotrophic factor
b) NT-3
c) NT-4

Claims 8, 10, 11-13, 27, 39, 40 and 54 are generic to a plurality of disclosed patentably distinct species comprising the following pathological disorders:

a) cardiac ischemia
b) atherosclerosis
c) renal vascular disease
d) stroke
e) wound
f) placental insufficiency
g) unvascularized tissue related to grafts and transplants
h) hemangiomas
i) proliferative retinopathy
j) cancer
k) disorders relating to endothelial cell apoptosis or necrosis

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Each species has a different special technical feature which encompasses separate and distinct polypeptides with different morphologies and functions such that one species could not be interchanged with the other; separate and distinct disorders which differ at least in etiology, pathology, and mechanisms; all of which encompass distinct methods wherein the steps and reagents of the above species are completely distinct and impart different biological functions and uses.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify

the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary B. Nickol Ph.D. whose telephone number is 703-305-7143. The examiner can normally be reached on M-F, 8:30-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa can be reached on 703-308-3995. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Gary B. Nickol, Ph.D.
Examiner
Art Unit 1642

GBN
September 16, 2002